

AMENDMENTS TO THE CLAIMS:

Kindly amend the claims as detailed below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Cancelled)
2. (Currently Amended) The method as claimed in claim 147, wherein said preparing embeddings said sealed assembly comprises:

providing a the substrate having with at least one V-groove;
inserting an optical fiber in each of the at least one V-groove;
and wherein the covering comprises: providing an epoxy coating substance over at least one part of said sealed assembly substrate, in the vicinity of the at least one V-groove; and
sealing the optical fiber in each of the at least one V-groove provided in the sealed assembly substrate using the epoxy coating substance, and a the sacrificial cover plate sheet material provided over said coupling surface and over the at least one V-groove, to ensure each said optical fiber is correctly placed and bonded within said at least one V-groove to create said sealed initial assembly; and
wherein said polishing of said first end of said sealed initial assembly at a predetermined angle provides a bevelled surface on said sealed initial assembly and thereby also provides a bevelled surface on each said optical fiber at the first end of said sealed assembly.
3. (Currently Amended) The method as claimed in claim 247, wherein further comprising the at least partially step of removing said sacrificial cover plate sheet material comprises completely removing said sacrificial cover plate from to expose said planar coupling surface of said initial sealed assembly.

4. (Currently Amended) The method as claimed in claim 247, wherein said cover plate is a transparent sheet of material is transparent, further comprising the step of at least partially removing said sheet material.
5. (Cancelled)
6. (Currently Amended) The method as claimed in claim 546, wherein the object of observation at least one of the references is a fiducial mark or an etching on at least one of said sealed initial assembly and said optical device.
7. (Previously presented) The method as claimed in claim 2, wherein the epoxy coating substance is light activated, further comprising the step of light activating the epoxy coating substance until it has solidified.
8. (Currently Amended) The method as claimed in claim 4, wherein the transparent sheet of material provides for comprises said coupling surface.
9. (Previously presented) The method as claimed in claim 2, wherein said at least one V-groove comprises a plurality of fibers inserted in a plurality of parallel V-grooves.
10. (Previously presented) The method as claimed in claim 2, wherein the at least one V-groove is etched in silicon.
11. (Cancelled)
12. (Currently Amended) The method as claimed in claim 445, wherein the sacrificial cover plate is a transparent sheet of material and wherein the step of placing said planar coupling surface of said sealed initial assembly over on said optical device with said planar coupling surface abutting a planar window over of said optical device comprises the providing of using at least a part of thea transparent sheet of material between said planar coupling surface and said planar window of said optical device as a coupling surface.
13. (Previously presented) The method as claimed in claim 12, wherein the optical device comprises a VCSEL.

14. (Currently Amended) The method as claimed in claim 12, wherein the optical device comprises a microlens provided at a distance from the sealed initial assembly that will enable a capture of all light originating from a corresponding optical fiber and collimates all the light into the optical device.

15.- 24. (Cancelled)

25. (Currently Amended) The method as claimed in claim 447, wherein said at least one embedded optical fiber comprises a plurality of fibers arranged as a ribbon cable.

26. (Currently Amended) The method as claimed in claim 347, wherein the at least partially removing said sacrificial cover plate further comprising comprises the step of buffing said planar coupling surface of said sealed initial assembly.

27. (Withdrawn) An optical connector assembly, comprising:
a sealed assembly comprising at least one embedded optical fiber;
said sealed assembly having a first end polished at a predetermined angle to enable a coupling of said optical fiber to an optical device using a total internal reflection to a planar coupling surface located on said sealed assembly;
said planar coupling surface being placed on said optical device with said planar coupling surface abutting a planar window over said optical device; and
said optical device and said sealed assembly having references for adjusting a position of said sealed assembly over said window to achieve said coupling.

28. (Withdrawn) The optical connector assembly as claimed in claim 27, wherein said sealed assembly further comprises:
a substrate having at least one V-groove;

an optical fiber inserted in each of the at least one V-groove;

an epoxy coating substance over at least one part of said sealed assembly, in the vicinity of the at least one V-groove;

the optical fiber being sealed in each of the at least one V-groove using the epoxy coating substance and a sheet material provided over said planar coupling surface; and

wherein said first end polished at a predetermined angle provides a bevelled surface on said sealed assembly and thereby also provides a bevelled surface on each said optical fiber at the first end of said sealed assembly.

29. (Withdrawn) The optical connector assembly as claimed in claim 28, wherein said sheet material is removed.

30. (Withdrawn) The optical connector assembly as claimed in claim 28, wherein said sheet material is transparent, and wherein said sheet material is at least partially removed.

31. (Withdrawn) The optical connector assembly as claimed in claim 27, wherein said optical fiber has a portion of a cladding removed to expose a core, said core being essentially adjacent to said planar coupling surface of said sealed assembly, said core near said edge positioned on said window over a corresponding optical element of said device.

32. (Withdrawn) The optical connector assembly as claimed in claim 31, further comprising a fiducial mark or etching on said sealed assembly.

33. (Withdrawn) The optical connector assembly as claimed in claim 27, wherein the epoxy coating substance is capable of light activation for solidification.

34. (Withdrawn) The optical connector assembly as claimed in claim 30, wherein the transparent sheet material provides said coupling surface on said sheet material.

35. (Withdrawn) The optical connector assembly as claimed in claim 28, wherein said at least one V-groove comprises a plurality of fibers each inserted in a respective one of a plurality of parallel V-grooves.
36. (Withdrawn) The optical connector assembly as claimed in claim 33, wherein the at least one V-groove is etched in silicon.
37. (Withdrawn) The optical connector assembly as claimed in claim 27, further comprising a transparent sheet of material between said coupling surface and said window of said optical device.
38. (Withdrawn) The optical connector assembly as claimed in claim 37, wherein the optical device comprises a VCSEL.
39. (Withdrawn) The optical connector assembly as claimed in claim 37, wherein the optical device comprises a microlens provided at a distance from the sealed assembly that will enable a capture of all light originating from a corresponding optical fiber and collimate all the light to the optical device.
40. (Withdrawn) The optical connector assembly as claimed in claim 27, further comprising an optically reflective coating on said first end including at least one embedded optical fiber to replace said total internal reflection.
41. (Withdrawn) The optical connector assembly as claimed in claim 27, wherein said at least one embedded optical fiber comprises a plurality of fibers arranged as a ribbon cable.
42. (Currently Amended) The method as in claim 447, wherein said at least partially removing comprises chemically treating said sheet of material sacrificial cover plate.
43. (Currently Amended) The method as in claim 447, wherein said at least partially removing comprises at least one of lapping and polishing said sheet of material sacrificial cover plate.
44. (Cancelled)

45. (New) The method as in claim 47, further comprising placing said planar coupling surface on said optical device with said planar coupling surface abutting a planar window of said optical device.
46. (New) The method as in claim 45, further comprising using references on said optical device and said initial assembly to adjust a position of said initial assembly over said planar window to achieve said optical coupling.
47. (New) A method for manufacturing an optical connector assembly, comprising:
 - providing a substrate;
 - embedding at least one optical fiber in the substrate;
 - covering the substrate with a sacrificial cover plate to seal the at least one optical fiber between the substrate and the sacrificial cover plate and to provide an initial assembly;
 - polishing a first end of said initial assembly at a predetermined angle to enable an optical coupling between said at least one optical fiber and at least one optical device using an optical reflection through a planar coupling surface located on said initial assembly; and
 - at least partially removing said sacrificial cover plate to expose at least a portion of said planar coupling surface of said initial assembly which allows said coupling.